Summary Report from the Louisiana Healthy Homes and Blood Lead Surveillance System for 2012 and 2013

Louisiana Department of Health and Hospitals

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Introduction

The Healthy Homes and Blood Lead Surveillance System (HHLPSS), collects information about blood-lead tests conducted on child residents of Louisiana between the ages of six and 72 months. Data are collected from several private laboratories that conduct the lead analysis for Louisiana. They are then compiled and analyzed to support outreach and prevention efforts, screening recommendations and resource allocation.

The full *Report from the Healthy Homes and Blood Lead Surveillance System for 2012 and 2013* will present blood-level screening rates and the prevalence of elevated blood-lead levels for the State and all parishes using data collected from several private laboratories. This summary report presents surveillance data for children in Louisiana who had blood-lead tests during 2012 and 2013. Records were included in this analysis if the child was between the ages of six months and 72 months and the record contained residential information indicating that the child lived in Louisiana at the time of the test. All addresses were geocoded, and county FIPS codes were assigned using Melissa Data, a software licensed by the Centers for Disease Control and Prevention (CDC) for this purpose. Each child contributed only one lead result to the analysis. For children with multiple lead tests, only the highest lead result was included in the final dataset. Both venous and capillary results are included. In the combined report, 3.7 percent of the samples were venous specimens, 76 percent were capillary specimens and 20.3 percent were of unknown type due to incomplete submission data.

 Screening estimates were calculated by dividing the number of children screened in an area by the population estimate of children aged six months to 72 months for the same area as obtained from the 2012 and 2013 American Community Survey (ACS) data sets. To determine the population of children aged six to twelve months, the ACS population estimates of children under one year of age were divided in half. The dataset for 2012 consisted of results from 53,478 Louisiana children for an overall screening rate of 15.4%. In 2012, 591 Louisiana children had an elevated blood-lead level (≥10µg/dl). In 2013, 64,247 Louisiana children were screened for lead for an overall screening rate 17.9%. In 2013, 748 children had an elevated blood-lead level (≥10µg/dl), and 4,128 children had blood-lead levels between 5µg/dl and 9.9µg/dl.

Screening rates between parishes varied in both estimation and reliability. Parishes with higher screening rates and larger numbers of children screened had stabler estimates for the prevalence of elevated lead levels than those with lower screening rates or with very few children screened. Similarly, parishes with higher screening rates and larger numbers of children screened also had more reliable estimates. Consumers of the data presented in this report should keep these limitations of the data in mind when reviewing or interpreting the information presented here.

Louisiana Statewide Data

Summary of Activity – 2012 and 2013 Data

	2012 Data	2013 Data
Population of children[1] 6 years old and under	349621	347776
Total children[2] screened	53748	64247
Proportion of children screened	15.4%	17.9%
Total children elevated (≥ 10 µg/dl[3])	591	748

Characteristic of Children[2] with Elevated Blood Lead levels-2012 and 2013 Data

Characteristic		2012 data (n=591)				2013 data (n=748)			
		≥10 and <15 µg/dl	≥15 and <20 µg/dl	≥20 µg/dl	Total	≥10 and <15 µg/dl	≥15 and <20 µg/dl	≥20 µg/dl	Total
Gender	Male	161	98	43	302	239	153	56	448
	Female	138	86	40	264	161	85	37	283
	Missing	10	8	7	25	9	6	2	17
Race	Black	72	48	11	131	93	67	8	168
	White	31	15	10	56	44	19	6	69
	Other	8	4	1	13	15	11	7	33
	Missing	232	94	65	391	259	163	56	478
Age (Months)	6 to 11	4	2	2	8	6	5	0	11
	12 to 35	201	91	85	377	247	156	70	473
	36 to 72	148	43	15	206	165	81	18	264
Total		353	136	102	591	418	242	88	748

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[1] Population estimates of children age 6 months to 72 months residing in the parish indicated are taken from 2012 and 2013 American Community Survey data sets

[2] Children age 6 months to 72 months screened at the Private Labs in 2012 and 2013.

[3] µg/dl indicating microgram per deciliter

Characteristic of Children[4] with Elevated Blood Lead levels-2012 and 2013 Data

Characteristic		2012 data (n=591)				2013 data (n=748)			
		≥10 and <15 µg/dl	≥15 and <20 µg/dl	≥20 µg/dl	Total	≥10 and <15 µg/dl	≥15 and <20 µg/dl	≥20 µg/dl	Total
Gender	Male	161	98	43	302	239	153	56	448
	Female	138	86	40	264	161	85	37	283
	Missing	10	8	7	25	9	6	2	17
Race	Black	72	48	11	131	93	67	8	168
	White	31	15	10	56	44	19	6	69
	Other	8	4	1	13	15	11	7	33
	Missing	232	94	65	391	259	163	56	478
Age (Months)	6 to 11	4	2	2	8	6	5	0	11
	12 to 35	201	91	85	377	247	156	70	473
	36 to 72	148	43	15	206	165	81	18	264

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[4] Children age 6 months to 72 months screened at the Private Labs in 2012 and 2013.

Parish Level Data

Summary of the Number of Children[5] with Elevated Blood Lead Levels by Parish 2013 Data

Parish	Population	Total Tested (n)	Total tested (%)	5-9.9 µg/dl	10-14.9 µg/dl	15-19.9 µg/dl	≥20 µg/dl	≥10 µg/dl	Total elevated (%)
		783	8.6%	65	2	1	2	5	0.6%
Allen	1526	289	18.9%	23	1	1	1	3	1.0%
Ascension	7561	967	12.8%	69	7	1	1	9	0.9%
Assumption	1510	209	13.8%	21	1	0	0	1	0.5%
Avoyelles	3150	485	15.4%	64	5	3	0	8	1.6%
Beauregard	2648	319	12.0%	47	4	2	1	7	2.2%
Bienville	1216	146	12.0%	51	1	1	0	2	1.4%
Bossier	18486	2196	11.9%	63	6	1	2	9	0.4%
Caddo	20179	2403	11.9%	249	22	13	3	38	1.6%
Calcasieu	31046	2513	8.1%	117	19	8	4	31	1.2%
Caldwell	751	158	21.0%	19	0	1	1	2	1.3%
Cameron	583	127	21.8%	11	1	0	0	1	0.8%
Catahoula	822	175	21.3%	18	2	2	0	4	2.3%
Claiborne	1207	162	13.4%	59	2	1	0	3	1.9%
Concordia	1786	298	16.7%	61	4	2	1	7	2.3%
De Soto	1934	189	9.8%	29	0	1	1	2	1.1%
East Baton Rouge	31150	5167	16.6%	415	35	24	9	68	1.3%
East Carroll	884	152	17.2%	12	2	2	2	6	3.9%
East Feliciana	1236	171	13.8%	17	4	0	0	4	2.3%
Evangeline	3563	324	9.1%	51	2	1	0	3	0.9%
Franklin	1684	453	26.9%	49	6	2	0	8	1.8%
Grant	1456	197	13.5%	10	0	1	1	2	1.0%
Iberia	5966	645	10.8%	44	3	1	0	4	0.6%
Iberville	2305	449	19.5%	65	5	3	1	9	2.0%
Jackson	1167	178	15.3%	12	0	0	0	0	0.0%
Jefferson Davis	2072	442	21.3%	51	7	2	1	10	2.3%
Jefferson	19156	5205	27.2%	289	33	21	8	52	1.0%
La Salle	1017	141	13.9%	19	1	0	0	1	0.7%
Lafayette	17845	1544	8.7%	65	8	0	1	9	0.6%
Lafourche	7420	967	13.0%	47	3	5	2	10	1.0%
Lincoln	2464	305	12.4%	34	2	0	0	2	0.7%
Livingston	9101	1181	13.0%	59	8	1	0	9	0.8%
Madison	1185	246	20.8%	25	1	0	1	2	0.8%

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[5] Children age 6 months to 72 months screened at the Private Labs in 2012 and 2013.

Morehouse	1285	232	18.1%	12	1	0	1	2	0.9%
Natchitoches	3183	557	17.5%	36	4	0	1	5	0.9%
Orleans	24852	6649	26.8%	638	103	52	10	165	2.5%
Ouachita	12551	2257	18.0%	152	10	6	3	19	0.8%
Plaquemines	1713	196	11.4%	14	3	1	0	4	2.0%
Pointe Coupee	1635	196	12.0%	18	1	1	1	3	1.5%
Rapides	10231	1541	15.1%	128	12	7	2	21	1.4%
Red River	888	124	14.0%	9	0	1	0	1	0.8%
Richland	1539	427	27.7%	42	3	1	1	5	1.2%
Sabine	1515	429	28.3%	27	4	1	0	5	1.2%
St. Bernard	1533	447	29.2%	17	1	1	0	2	0.4%
St. Charles	3542	625	17.6%	45	5	1	0	6	1.0%
St. Helena	854	249	29.2%	12	1	1	0	2	0.8%
St. James	1600	221	13.8%	11	0	0	0	0	0.0%
St. John the Baptist	3453	677	19.6%	40	5	2	0	7	1.0%
St. Landry	7773	1285	16.5%	82	7	2	1	10	0.8%
St. Martin	4034	369	9.1%	9	0	1	1	2	0.5%
St. Mary	4127	505	12.2%	30	5	3	2	10	2.0%
St. Tammany	14676	1868	12.7%	120	7	7	0	14	0.7%
Tangipahoa	9190	1549	16.9%	73	9	6	1	16	1.0%
Tensas	527	97	18.4%	8	2	1	0	3	3.1%
Terrebonne	8449	913	10.8%	51	2	3	0	5	0.5%
Union	1447	379	26.2%	22	3	1	1	5	1.3%
Vermilion	3386	809	23.9%	33	1	1	1	3	0.4%
Vernon	4113	269	6.5%	17	1	1	1	3	1.1%
Washington	3064	584	19.1%	43	2	1	3	6	1.0%
Webster	2685	568	21.2%	56	6	3	3	12	2.1%
West Baton Rouge	1675	268	16.0%	1	0	2	0	2	0.7%
West Carroll	897	142	15.8%	7	3	1	0	4	2.8%
West Feliciana	743	139	18.7%	2	0	0	0	0	0.0%
Winn	1322	192	14.5%	15	3	1	0	4	2.1%